

# Contents

Vol. 123, No. 1—4, 1996

Preface <i>S. Caroli, R. Morabito</i>	1
<b>General Session</b>	
Certified Reference Materials for the Quality Control of Environmental Analysis within the Standards, Measurements and Testing Programme (Formerly BCR) <i>P. Quevauviller</i>	3
Biological and Environmental Reference Materials from the National Institute for Environmental Studies (Japan) <i>K. Okamoto, J. Yoshinaga, M. Morita</i>	15
Validating Automated Analytical Instruments to Meet Regulatory and Quality Standard Requirements <i>M. Zanetti, L. Huber</i>	23
<b>Analytical Quality Control in Food Science</b>	
The Role of Reference Materials in Food Analysis <i>M. Miraglia, C. Brera</i>	33
Proficiency Testing Programmes as a Tool in Food Quality Assurance: Overview of Italian Experiences <i>C. Brera, M. Miraglia</i>	39
Influence of Relative Response Factor in the Determination of Organic Micro- contaminants with Isotopically Labeled Standards <i>L. Turrio-Baldassarri, A. di Domenico, A. Fulgenzi, C. La Rocca, N. Iaco- vella, F. Rodriguez, F. Volpi</i>	45
European Intercomparison Study for the Determination of Fumonisins in Maize <i>A. Visconti, M. B. Doko, M. Solfrizzo, M. Pascale, A. Boenke</i>	55
Analysis of Mercury Traces by Means of Solid Sample Atomic Absorption Spectrometry <i>N. Salvato, C. Pirola</i>	63
Validation and Quality Control of Methylmercury Determinations by Means of Capillary Electrophoresis <i>A. M. Carro Diaz, R. A. Lorenzo-Ferreira, R. Cela-Torrijos</i>	73

*Analytical Quality Control in Environmental Sciences*

The Preparation of Biological and Environmental Reference Materials <i>G. N. Kramer, J. Pauwels</i> . . . . .	87
Interlaboratory Exercises to Compare Analytical Method Performances <i>A. Marchetto, R. Mosello, M. Bianchi, H. Geiss, G. Serrini, G. Serrini Lanza, G. A. Tartari, H. Muntau</i> . . . . .	95
Mercury Species Immobilized on Sulphydryl Cotton: a New Candidate Reference Material for Mercury Speciation <i>M. L. Mena, C. W. McLeod</i> . . . . .	103
Cr(III) and Cr(VI) Speciation Measurements in Environmental Reference Materials <i>K. Vercoutere, R. Cornelis, S. Dyg, L. Mees, J. M. Christensen, K. Byralsen, B. Aaen, P. Quevauviller</i> . . . . .	109
Planning and Certification of New Multielemental Reference Materials for Research in Antarctica <i>S. Caroli, O. Senofonte, S. Caimi, J. Pauwels, G. N. Kramer</i> . . . . .	119
Analytical Quality Control: Sampling Procedures to Detect Trace Metals in Environmental Matrices <i>G. Capodaglio, C. Barbante, C. Turetta, G. Scarponi, P. Cescon</i> . . . . .	129
Environmental Thin-Layer Reference Materials of Urban Particulate Matter on Filter Media <i>W. K. Stankiewicz, Z. A. Mzyk, B. M. Roter</i> . . . . .	137
A New Standardized Leaching Test on Stabilized Wastes <i>S. Balzamo, A. Marchetti</i> . . . . .	145
Accreditation and the Need for Certified Reference Materials <i>W. P. Cofino</i> . . . . .	151
A Programme to Improve the Quality of Butyltin Determinations in Environmental Matrices <i>P. Quevauviller, M. Astruc, L. Ebdon, H. Muntau, W. Cofino, R. Morabito, B. Griepink</i> . . . . .	163
Analytical Quality Control for the Determination of Polychlorobiphenyls in Environmental Matrices <i>R. Fuoco, M. P. Colombini, A. Ceccarini</i> . . . . .	175
Sources of Error in the Determination of Non-Ionic Surfactants in Environmental Samples <i>Z. Lukaszewski, A. Szymanski</i> . . . . .	185
Statistical Design of Data Handling in Environmental Analysis <i>L. Paksy</i> . . . . .	197
The Current State of Analytical Control in Lithuania <i>V. Vičkačaitė, R. Kazlauskas, P. Serapinas, M. Šalkauskas</i> . . . . .	207
The Use of Reference Materials in the Fossil Fuels Quality Control <i>M. Bettinelli, S. Spezia, U. Baroni, G. Bizzarri</i> . . . . .	217

**Analytical Quality Control in Occupational, Environmental and Preventive Medicine**

Correcting Measurement Errors Using Reference Materials in Method Validation <i>J. M. Christensen</i>	231
Uncertainty of Atomic Absorption Spectrometry: Application to the Determination of Lead in Blood <i>J. Kristiansen, J. M. Christensen, J. L. Nielsen</i>	241
Reference Materials and Analytical Standards to Stimulate Improved Laboratory Performance: Experience from the External Quality Assessment Scheme for Trace Elements in Biological Samples <i>A. Taylor</i>	251
Monitoring of Sources of Clinical Exposure to Nickel <i>M. Patriarca, G. S. Fell</i>	261
Quality Control in Hair Analysis: a Systematic Study on Washing Procedures for Trace Element Determinations <i>P. Borella, S. Rovesti, E. Caselgrandi, A. Bargellini</i>	271
Blood Lead Monitoring in Italy: Assessment of the Quality of Results Obtained Between 1992 and 1994 <i>G. Morisi, M. Patriarca, F. Chiodo, A. Minoprio, A. Menditto</i>	281
Blood Lead and Cadmium Determination: Results of the Italian External Quality Assessment Scheme <i>A. Menditto, M. Patriarca, F. Chiodo, G. Morisi</i>	291
Some Aspects of Quality Assessment of the $k_0$ -Based Method of NAA <i>B. Smolič</i>	303
Determination of Selenium in Biological Materials by Means of RNAA and Comparison of Spectrophotometric and $^{81m}$ Se Radiotracer Recovery <i>V. Stibilj, M. Dermelj, A. R. Byrne</i>	311

**News Section**

Announcement	317
Conference Calendar	319
Impressum	322

Abstracted/Index in: Current Contents, SCI, ASCA, Analytical Abstracts, Biosis, Chemical Abstracts, Engineered Materials Abstracts, Metals Abstracts